



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,970	07/08/2004	Georg Weihrauch	20776.1	3379

24025 7590 09/22/2005

PATENTANWALTE LICHTI + PARTNER GBR
POSTFACH 41 07 60
D-76207
KARLSRUHE,
GERMANY

EXAMINER

HEITBRINK, JILL LYNNE

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/500,970

Applicant(s)

WEIHRAUCH, GEORG

Examiner

Jill L. Heitbrink

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/8/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 75-150 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 75-150 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/8/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 75-147 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 98-119 of copending Application No. 10/508,182. Although the conflicting claims are not identical, they are not patentably distinct from each other because the common ratio of the cross section of a bristle to the bristle length is less than 1:10 since bristle are long and narrow.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 75-112, 118-127, 135 and 147-150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kutik Pat. No. 3,357,058 taken together with INJECTION MOLDING HANDBOOK, 3rd edition by Rosato et al.

5. Kutik discloses injection molding bristles. The ratio of the cross section to the length of the channels are clearly within the ratio of 1:10 as shown in the figures and as known for the size of molded bristles for brushes and toothbrushes. Kutik discloses venting of the channel length during molding (col. 1, lines 67-69) which is transverse to the flow direction of the polymer mass. Rosato teaches the injected material having a high core speed in the center flow (page 249) and a large shearing effect due to wall friction (pages 249,250) of the mass under distinct longitudinal orientation of the polymer molecules (page 244). The injected material having a high core speed in the center flow and a large shearing effect due to wall friction of the mass under distinct longitudinal orientation of the polymer molecules would have been obvious in Kutik as shown by Rosato in view of the elongated shape of the cavity. The injection pressure being set to support crystal seed formation would have been obvious from the longitudinal orientation of the polymer in the elongated cavity. The injection pressure need to fill the elongated cavity would have been within the claimed range in Kutik in view of the teaching of Rosato (page 670-672) so as to properly fill the cavity. Kutik discloses simultaneously injecting the bristles which may have different lengths and cross sections as shown by the drawings. The molding of bristles with different bending elasticity by molding different polymer masses in the same molding channels would have been obvious since each molding mass has different intrinsic properties.

Art Unit: 1732

6. Claims 76, 78, 106, 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kutik Pat. No. 3,357,058 taken together with INJECTION MOLDING HANDBOOK, 3rd edition by Rosato et al. as applied to claims 75-112, 118-127, 135 and 147-150 above, and further in view of Snyder Pat. No. 2,651,810.

7. Snyder discloses injection pressure of 300-100 atmosphere or bar. It would have been obvious to use similar pressure in Kutik since they are forming similar elongated bristles.

8. Claims 75-150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klinkhammer Pat. No. 5,531,582 taken together with INJECTION MOLDING HANDBOOK, 3rd edition by Rosato et al.

9. Klinkhammer discloses injection molding bristles. The ratio of the cross section to the length of the channels are clearly within the ratio of 1:10 as shown in the figures and as known for the size of molded bristles for brushes and toothbrushes. Klinkhammer discloses venting of the channel length during molding (col. 2, lines 50-58) which is transverse to the flow direction of the polymer mass. Rosato teaches the injected material having a high core speed in the center flow (page 249) and a large shearing effect due to wall friction (pages 249,250) of the mass under distinct longitudinal orientation of the polymer molecules (page 244). The injected material having a high core speed in the center flow and a large shearing effect due to wall friction of the mass under distinct longitudinal orientation of the polymer molecules would have been obvious in Klinkhammer as shown by Rosato in view of the elongated shape of the cavity. The injection pressure being set to support crystal seed formation would have

Art Unit: 1732

been obvious from the longitudinal orientation of the polymer in the elongated cavity.

The injection pressure need to fill the elongated cavity would have been within the claimed range in Klinkhammer in view of the teaching of Rosato (page 670-672) so as to properly fill the cavity. Klinkhammer discloses simultaneously injecting the bristles which may have different lengths and cross sections as shown by the drawings. The molding of bristles with different bending elasticity by molding different polymer masses in the same molding channels would have been obvious since each molding mass has different intrinsic properties.

10. Claims 76, 78, 106, 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klinkhammer Pat. No. 5,531,582 taken together with INJECTION MOLDING HANDBOOK, 3rd edition by Rosato et al. as applied to claims 75-112 above, and further in view of Snyder Pat. No. 2,651,810.

11. Snyder discloses injection pressure of 300-100 atmosphere or bar. It would have been obvious to use similar pressure in Klinkhammer since they are forming similar elongated bristles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill L. Heitbrink whose telephone number is (571) 272-1199. The examiner can normally be reached on Monday-Friday 9 am -2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jill L. Heitbrink
Primary Examiner
Art Unit 1732

jlh